AMSAT News Service Weekly Bulletins
Issue: ANS-072
Date: 2011-03-13
Sources: amsat-ans-2011-ans-072-weekly.txt

AMSAT NEWS SERVICE
ANS-072

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

In this edition:
* AMSAT responds to HR 607 threat to 70-cm satellite operations
* GPredict Now Available for Windows
* OSCAR 11 Report 04 March 2011
* Middle School Students to Launch Near-Space Balloon
* ARISS Status - 7 March 2011

SB SAT @ AMSAT $ANS-072.01
AMSAT responds to HR 607 threat to 70-cm satellite operations

AMSAT News Service Bulletin 072.01
  From AMSAT HQ SILVER SPRING, MD.
March 13, 2011
To All RADIO AMATEURS
BID: $ANS-072.01

Recently a bill, H.R. 607, the "Broadband for First Responders Act of 2011," was introduced by Rep. Peter King (R-NY). The bill addresses the creation and maintenance of a nationwide Public Safety broadband network.

This bill is unique in that it provides for the reallocation of the 420-440 MHz block of frequencies away from its current primary and secondary users. The inclusion of most of the amateur 70-cm spectrum, and the entire spectrum allocated for the Amateur Satellite Service, constitutes a major threat to satellite operations. Almost all current and planned amateur satellites include the use of 70-cm band. If the use of 70-cm is lost, there is no reasonable replacement.

The next available band, 23-cms, is restricted to uplinks, and is coming under increasing pressure from global navigation services. Likewise, 13-cms is rapidly becoming unusable due to terrestrial noise sources from consumer devices. The passage and implementation of this bill will effectively end the ability to use relatively cheap, readily available amateur equipment for both amateur communications and university research programs.

More details can be found at WWW.ARRL.ORG as well as a sample letter which may be edited for your use. There is information on using the ARRL's legislative liaison to speed the delivery due to existing security restrictions on direct mail. An AMSAT sample letter, stressing the interests of amateur satellite users, is available at WWW.AMSAT.ORG.

[ANS thanks Alan, WA4SCA, for the above information]

/EX

SB SAT @ AMSAT $ANS-072.02
GPredict Now Available for Windows

AMSAT News Service Bulletin 072.02
  From AMSAT HQ SILVER SPRING, MD.
March 13, 2011
To All RADIO AMATEURS
BID: $ANS-072.02

Alexandru has just made Gpredict 1.3 available free for all you Windows operators at

https://sourceforge.net/projects/gpredict/files/Gpredict/1.3/

Of course, it's also available for Mac and Linux users.

[ANS Nigel, W8IFF, for the above information]

/EX

SB SAT @ AMSAT $ANS-051.03
OSCAR 11 Report 04 March 2011

AMSAT News Service Bulletin 051.03
  From AMSAT HQ SILVER SPRING, MD.
February 20, 2011
To All RADIO AMATEURS
BID: $ANS-051.03

OSCAR-11 celebrated it's 27th birthday on 01 March! It was designed, built and launched within a period of six months, using commercially available 'off the shelf' components (COTS). Once again, congratulations to Professor Sir Martin Sweeting G3YJO, his team at the University of Surrey and groups of radio amateurs who also contributed to the project. Unfortunately, the satellite wasn't transmitting on its birthday, but resumed transmissions, three days later.

This report covers the period from 31 January to 04 March 2011. During this time the satellite has been heard from 10 to 21 February and from 03 March 2011. It is expected to switch-off again 13 March until 23 March.

Excellent signals have been reported from stations located around the world, and good copy obtained from decoded telemetry frames.

The satellite is now transmitting during eclipses, although signals are weaker at those times. This indicates that there is still some capacity remaining in the battery.

The on-board clock is now very stable.

The VHF beacon frequency is 145.826 MHz. AFSK FM ASCII Telemetry

At the present time, while OSCAR-11 is operating in a predictable way, I no longer need direct reports or files by e-mail. However, could all listeners continue to enter their reports on the general satellite status website. This is a very convenient and easy to use facility, which shows the current status of all the

amateur satellites, and is of use to everyone. Reports around the expected times of switch-on and switch-off are of special interest, especially for times 12:00 - 17:00 and 22:00 - 07:00 UTC, to when the satellite is out-of-range in the UK . The URL is http://oscar.dcarr.org/index.php

A longer version of this report is available on my website, and new listeners to OSCAR-11 should read this for further information. The URL is www.g3cwv.co.uk/oscar11.htm . This page contains a links to the longer report, a short audio clip to help you identify the satellite and a file of the last telemetry received. The website also contains an archive of news & telemetry data which is updated from time to time, and details about using a sound card or hardware demodulators for data capture. There is also software for capturing data, and decoding ASCII telemetry.

If you place this bulletin on a terrestrial packet network, please use the bulletin identifier $BID:U2RPT154.CWV, to prevent duplication.

73 Clive G3CWV xxxxx@amsat.org (please replace the x's by g3cwv)

[ANS thanks Clive, G3CWV, for the above information]

/EX

SB SAT @ AMSAT $ANS-051.04
Middle School Students to Launch Near-Space Balloon

AMSAT News Service Bulletin 051.04
From AMSAT HQ SILVER SPRING, MD.
February 20, 2011
To All RADIO AMATEURS
BID: $ANS-051.04

A group of students from Olde Towne Middle School (OTMS) in Ridgeland, Mississippi is preparing for a trip to space -- or as close as they can get. The OTMS Radio and Technology Club, along with the school's Science Team, are planning a near-space balloon launch at 9 AM (CDT) on March 26 (the date and time are subject to change depending on weather). The balloon -- nicknamed Titans in Space -- will use the call sign KC5NXD and is expected to reach an altitude of 94,825 feet.

The project is led by Bill Richardson, N5VEI, a past participant in the ARRL Teachers Institute on Wireless Technology, a professional development program that is part of ARRL's donor-funded Education & Technology Program. The school has also received several grants of Amateur Radio station equipment from this program. Richardson is the sponsor of the school's Radio and Technology Club.

The balloon will be equipped with instruments to track its exact location and a camera that will take snapshots every 15 seconds. The students will stay on the ground and analyze the data as it is transmitted back to them from the balloon. "As far as I can research, we are the first elementary, middle or high school to launch a near-space balloon in our state," Richardson told the ARRL. The balloon will launch from the Madison County Career and Technology Center in Gluckstadt. Preflight will begin at 90 minutes before the scheduled launch. The preflight and launch will be stream-cast live on the Internet at,

http://www.ustream.tv/user/kc5nxd. You can also follow along on Twitter.

"Our students are busy with assembly and payload testing right now, preparing for launch day," said OTMS Principal Allen Lawrence. "This is really a great science experiment and they are all excited."

Richardson is encouraging radio amateurs to follow the balloon via APRS on 144.39 MHz, on http://aprs.fi with the call sign kc5nxd-11 and via a 2 meter voice beacon on 146.565 MHz. A 20 meter beacon at 14.079-14.080.5 MHz will offer telemetry in four modes: Domino-ex16, CW, RTTY and Hellschreiber.

According to Richardson, the group will be using a special balloon-modified version of FLdigi, called dl-FLdigi. Ground stations receive the balloon's telemetry via the program's soundcard decoding software (available as a free download from http://www.w1hkj.com). "In essence, you are creating your own HF or VHF APRS-style network on the fly," he explained. "When a valid frame is received by a ground station, it is then sent via dl-FLdigi to a server that then plots the position onto a website dedicated to high altitude ballooning." The website can be found at, http://spacenear.us/tracker.

Richardson said that the students need help to grab data packets or use the FLdigi to relay to packets to the network: "With the new telemetry system, we will have a better data set for a final landing spot, as well as research data."

The launch is in partnership with the Mississippi State University's Bagley College of Engineering's aeronautical engineering program, which has provided support and supplies to the students' efforts. The project has already received national attention from The Sally Ride Foundation, named after the first American woman to fly in space. The foundation -- dedicated to supporting girls' and boys' interests in science, math and technology -- sent the students a letter of support and congratulations in advance of the launch. All funding for the project has come from donations and fund raisers. The project has received support from the local community, including the Jackson (Mississippi) Amateur Radio Club.

[ANS thanks ARRL for the above information]

/EX

SB SAT @ AMSAT $ANS-072.05
ARISS Status - 7 March 2011

AMSAT News Service Bulletin 072.05
  From AMSAT HQ SILVER SPRING, MD.
March 13, 2011
To All RADIO AMATEURS
BID: $ANS-072.05

1. Recent ARISS Contacts

On Wednesday, March 2 an ARISS contact was held between on-orbit astronaut Paolo Nespoli, IZ0JPA and Mackay State High School students in Queensland, Australia via telebridge station VK5ZAI, Australia. All 16 questions were answered. One of the approximately 200 people in attendance was the mayor of Mackay who asked the ARISS team to "keep up the good work - you are doing a great job inspiring our students." He expressed his amazement on how well timed and extremely enjoyable the

contact was. Three television stations covered the radio hookup and snippets of the event were broadcast on at least 2 regional TV channels all afternoon following the contact. The Mackay Daily Mercury wrote a story on the event:
http://www.dailymercury.com.au/story/2011/03/03/historic-link-to-space-mackay-high-school/

Technological Centre for Innovation in Communications (CeTIC) in Las Palmas de Gran Canaria, Spain experienced a successful ARISS contact on Thursday, March 3. Astronaut Paolo Nespoli, IZ0JPA answered all 20 questions posed to him by the students. The contact supplemented lessons on orbit prediction, satellite tracking and common communications systems.

Victory Primary School in Nelson, New Zealand participated in an ARISS contact on Thursday, March 3 via telebridge station W6SRJ in California.

Cady Coleman,KC5ZTH answered 17 questions prepared by the students. One additional query was answered with the help of shuttle crew member Alvin Drew. The contact was the culmination of a science curriculum focused on space and technology.

2. NASA Posts Article on Ten Years of ARISS Contacts

NASA posted a feature story on the 10th anniversary of ARISS contacts to its Web site. "One Small Radio Call for a Ham" may be found on the following page:
http://www.nasa.gov/audience/foreducators/one-small-radio-call.html

3. Astronaut Training Status

A few exam review sessions were provided for Chris Cassidy this past week. Astronauts Andre Kuipers, PI9ISS and Don Pettit, KD5MDT participated in simulated ARISS contacts with students in Belgium and Canada, respectively on March 3.

An ARISS introductory course is planned for Mike Hopkins on March 9 and a refresher course for Chris Hadfield is scheduled for March 10.

[ANS thanks Carol, KB3LKI, for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
Lee McLamb, KU4OS